

North Dakota Competitiveness: Creating a State Economic Strategy



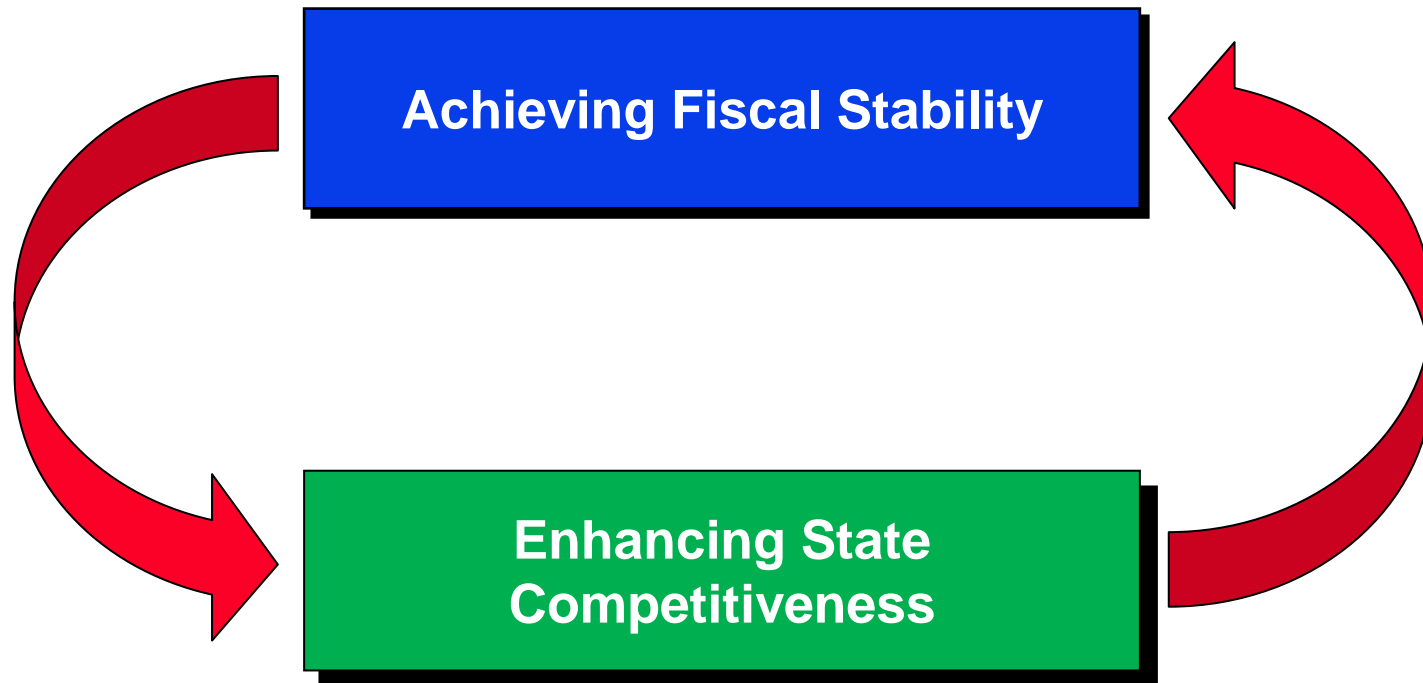
Professor Michael E. Porter
Harvard Business School

March 28, 2012

For further material on regional competitiveness and clusters: www.isc.hbs.edu/econ-clusters.htm

For state economic profiles: www.isc.hbs.edu/econ-statesregions.htm

The Economic Challenge for Governors in 2012



What is Competitiveness?

- Competitiveness is the **productivity** with which a state utilizes its human, capital, and natural endowments to create value
- Productivity determines **wages, jobs**, and the **standard of living**
- It is not **what** fields a state competes in that determines its prosperity, but **how productively** it competes

Where Does Productivity Come From?

Businesses and government play **different but interrelated roles** in creating a productive economy

- Only **businesses** can create **jobs** and **wealth**
- **States** compete to offer the **most productive environment** for business

Agenda

- | | |
|-----------------------------|--|
| 1. How is your state doing? | State Performance Scorecard |
| 2. Why? | Explaining your state's performance, strengths, and weaknesses |
| 3. Where to go from here? | Action Steps |

North Dakota Performance Scorecard

Start Position

Trend

Current Position

Prosperity

GDP per Capita, 2000-2010

38

1

11

+27

Wages

Average Private Wage, 1998-2009

48

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Job Creation

*Private Employment Growth,
1998-2000 and 2007-2009*

45

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Labor Mobilization

*Proportion of Working Age Population
in the Workforce, 2000-2010*

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Labor Productivity

GDP per Workforce Participant, 2000-2010

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New Business Formation

*Traded Cluster Establishment Growth,
1998-2000 and 2007-2009*

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Innovation

Patents per Employee, 2000-2010

38

21

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+1

Cluster Strength

Employment in Strong Clusters, 1998-2009

41

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+5

Leading Clusters

*by employment size, 2009
(national rank)*

- Processed Food (38)
- Heavy Machinery (18)
- Oil and Gas Products and Services (17)
- Agricultural Products (36)
- #NA

State Rank



1-10



21-30



11-20



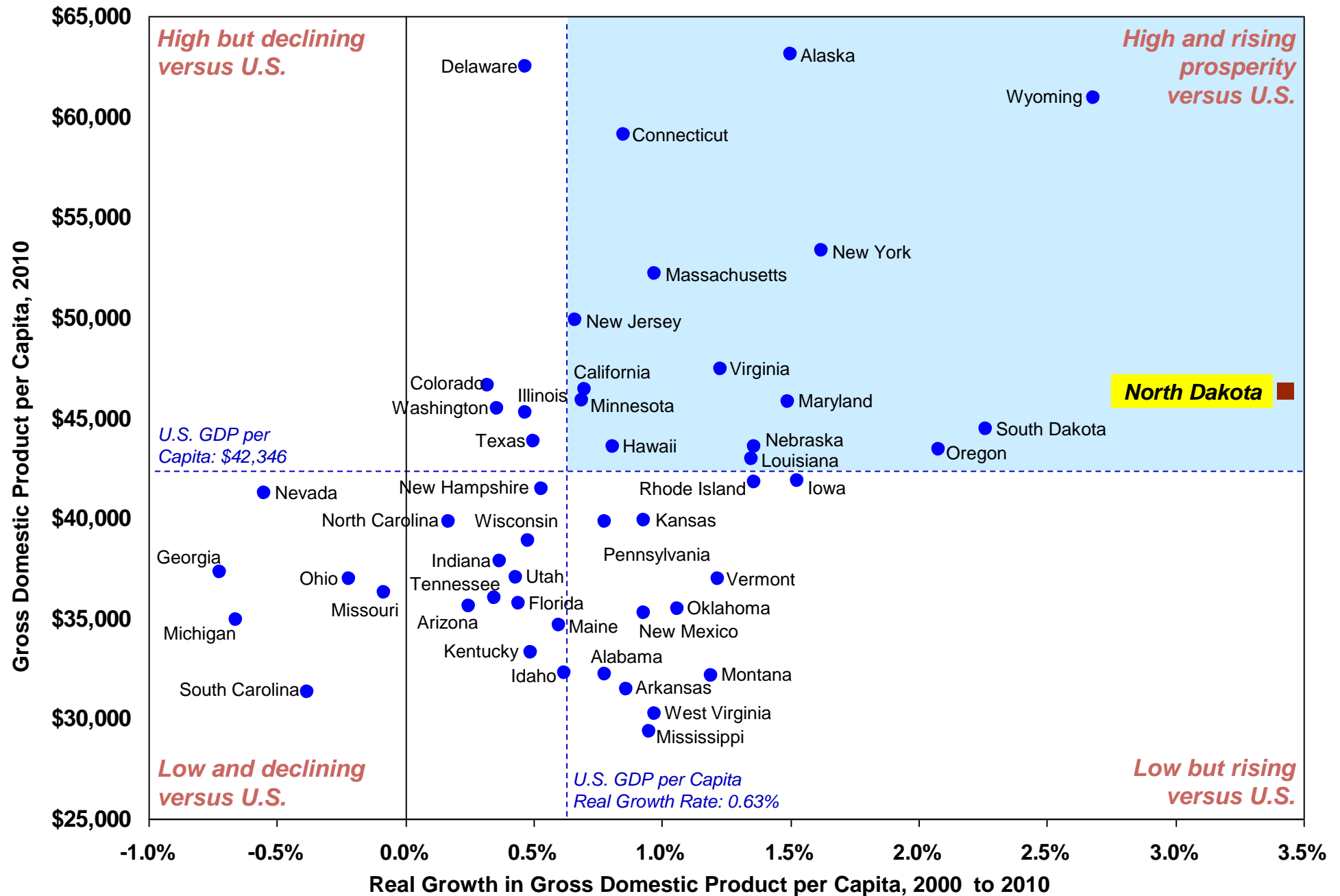
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Comparative State Prosperity Performance

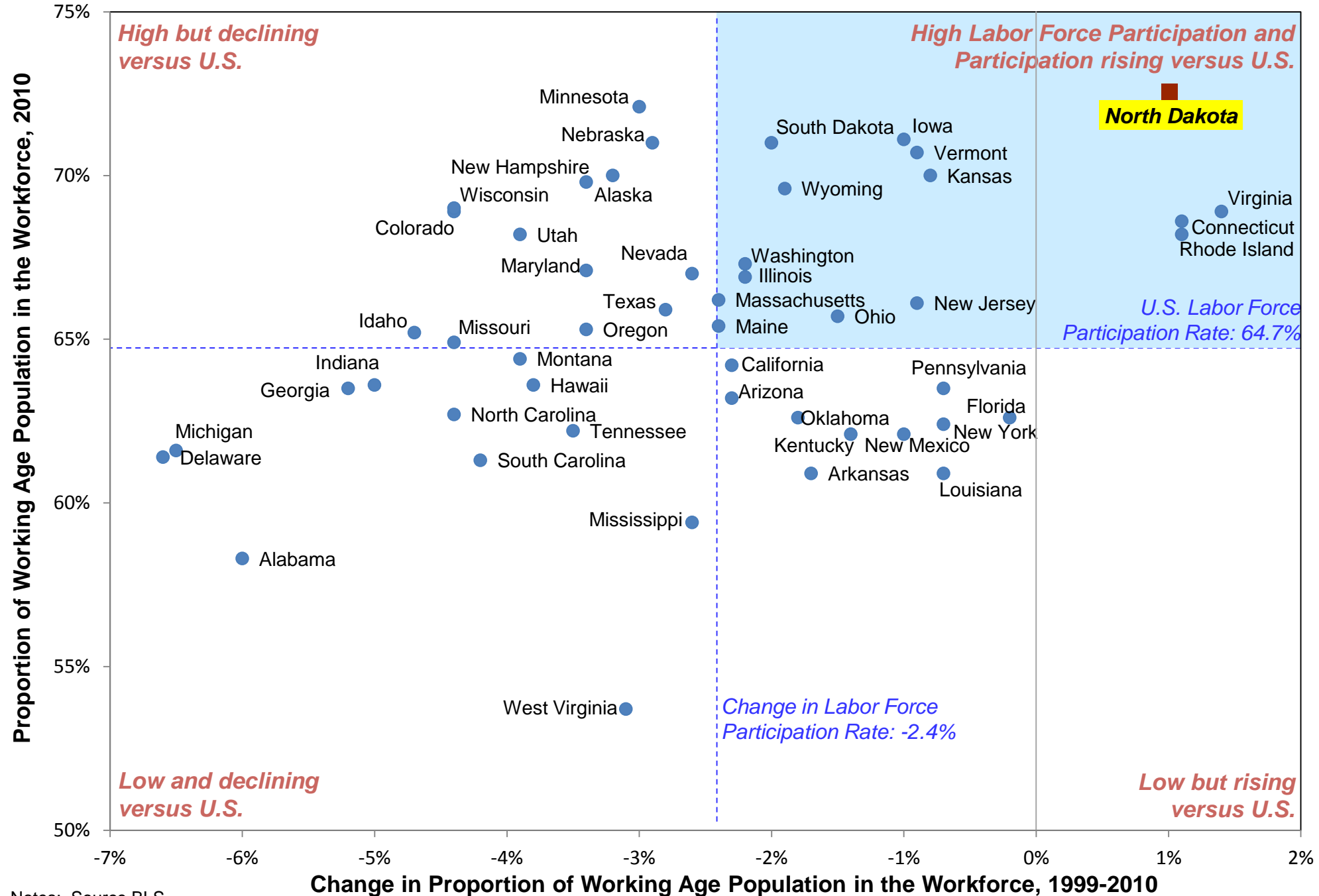
2000 - 2010



Source: BEA. Notes: GDP in real 2005 dollars. Growth rate is calculated as compound annual growth rate.

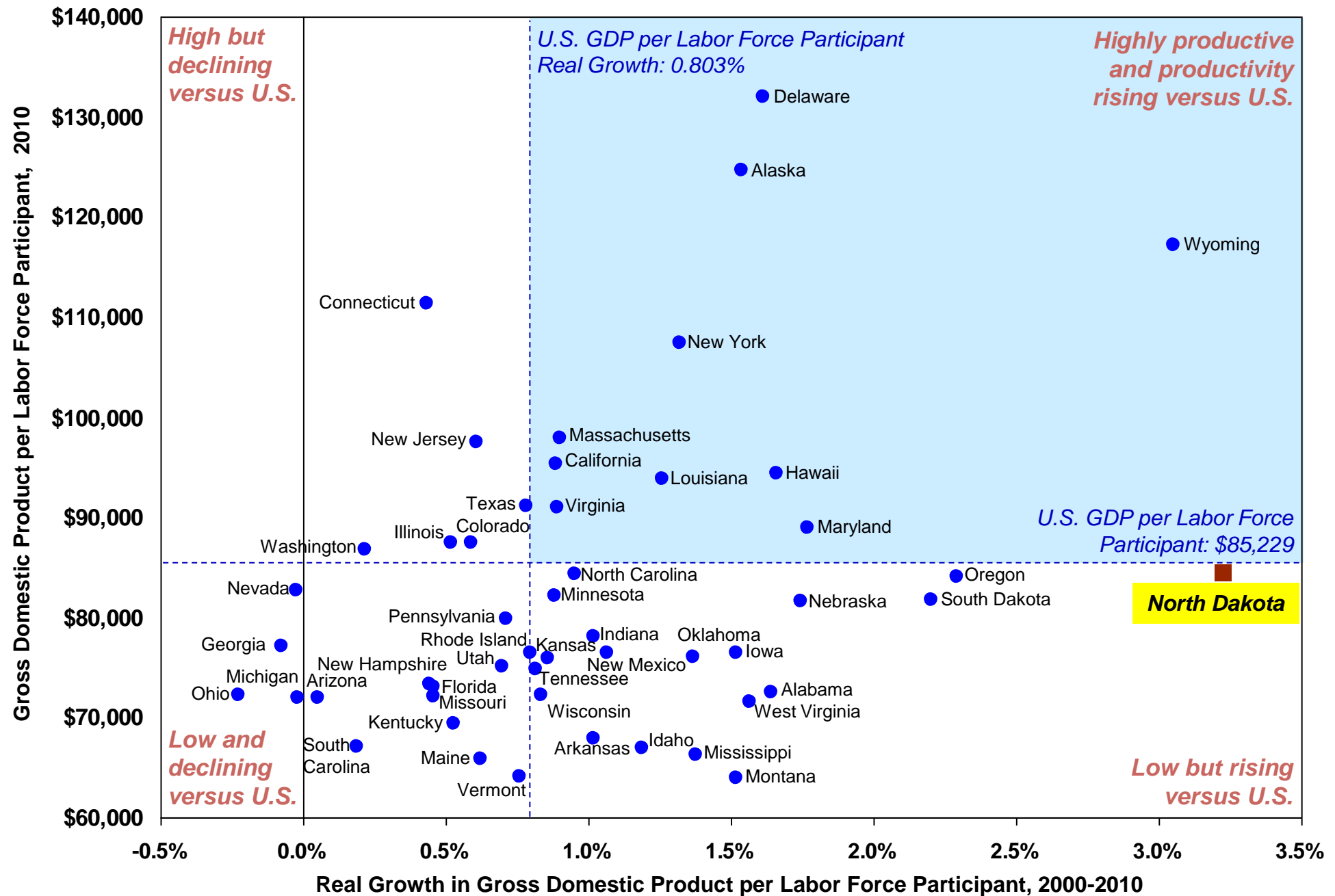
Comparative State Labor Mobilization Performance

1999-2010



Comparative State Labor Force Productivity Performance

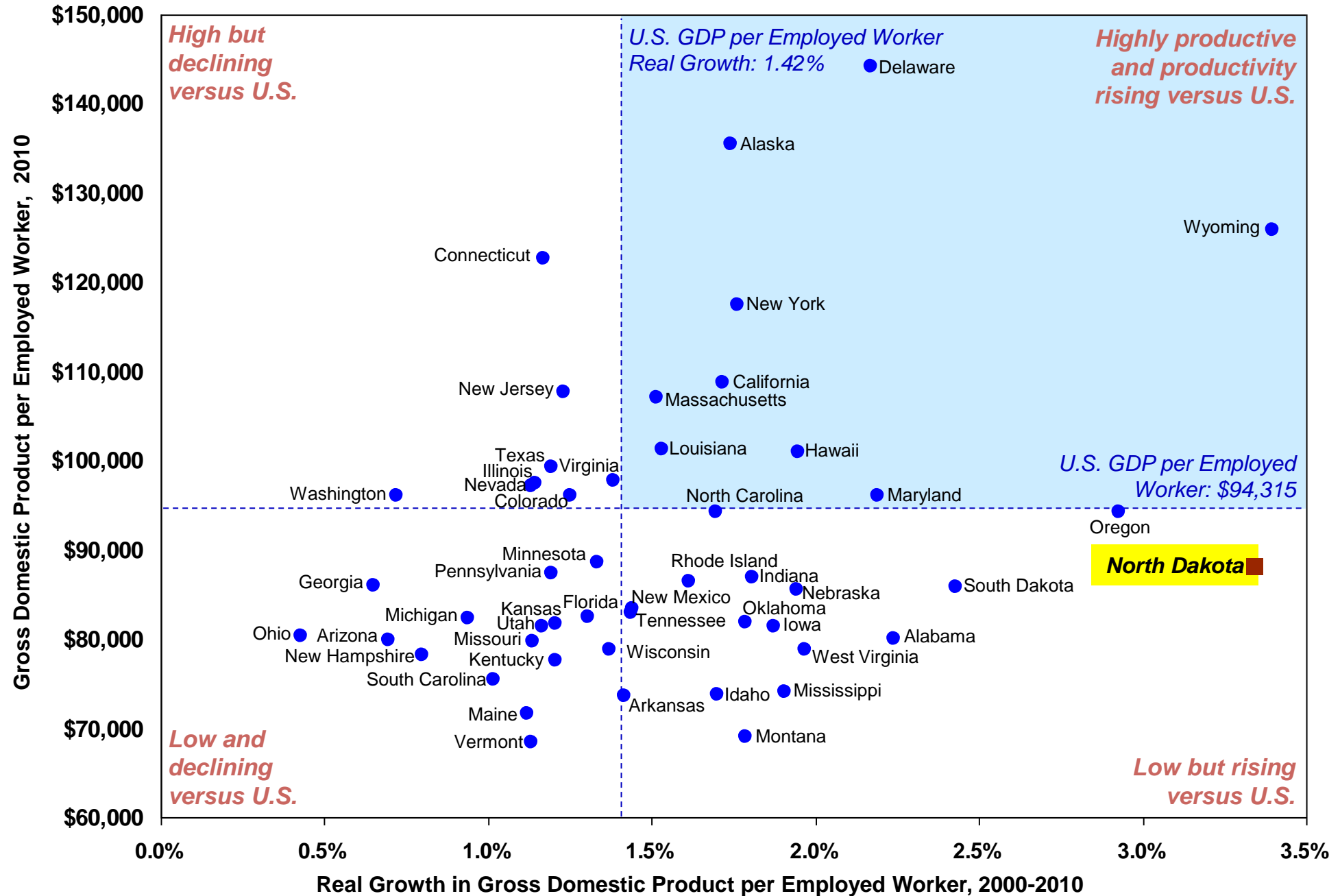
2000-2010



Sources: BEA, BLS. Notes: GDP in real 2005 dollars. Growth rate is calculated as compound annual growth rate.

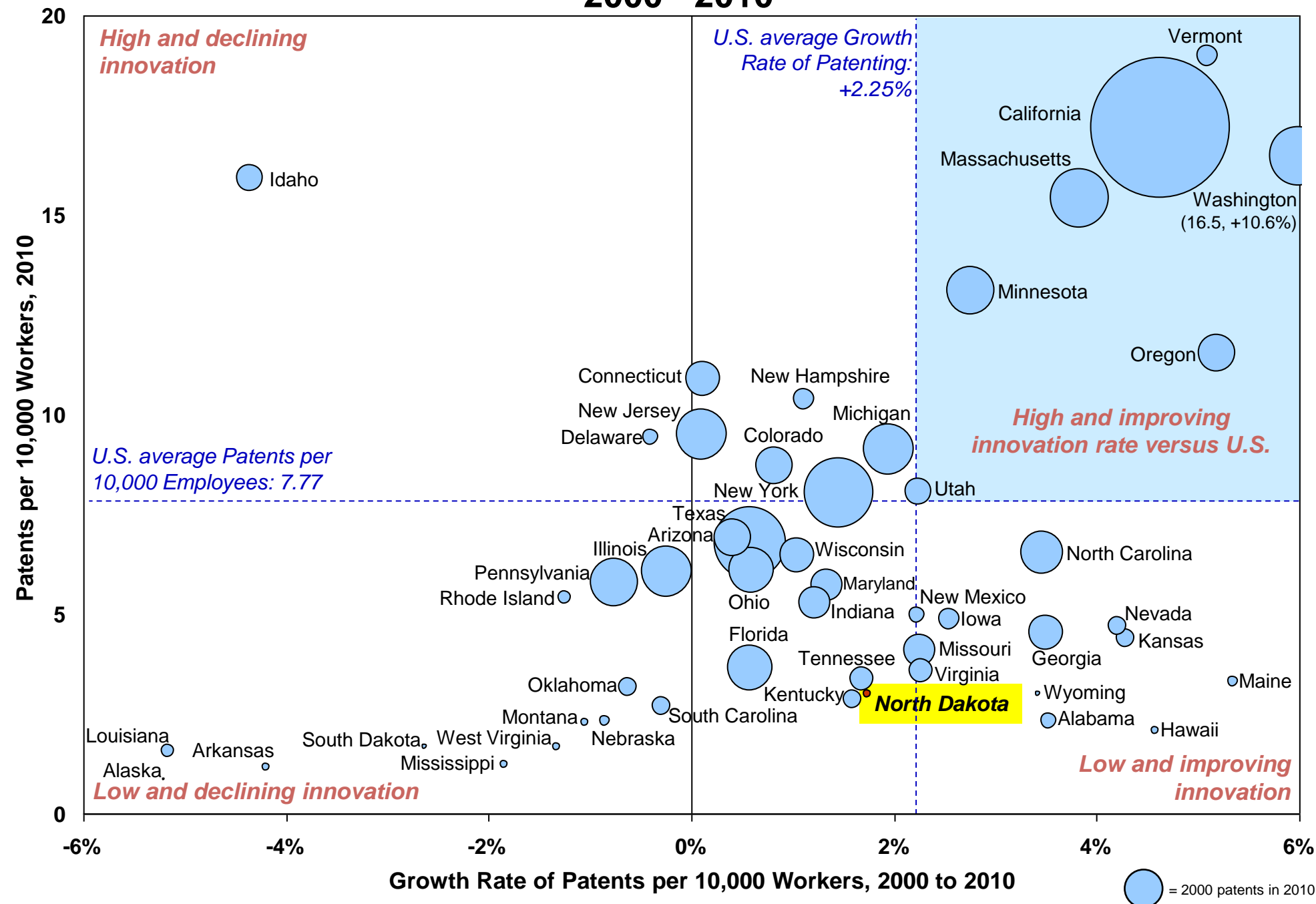
Comparative State **Employee Productivity** Performance

2000-2010



Sources: BEA, BLS. Notes: GDP in real 2005 dollars. Growth rate is calculated as compound annual growth rate.

Comparative State **Innovation** Performance 2000 - 2010



Source: USPTO utility patents, Bureau of Labor Statistics. Note: Growth rate calculated as compound annual growth rate (CAGR).

Why?

What Drives State Productivity?

**1. Quality of the
Overall Business
Environment**

**2. Cluster
Development**

**3. Policy
Coordination
among Multiple
Levels of
Geography/
Government**

Why?

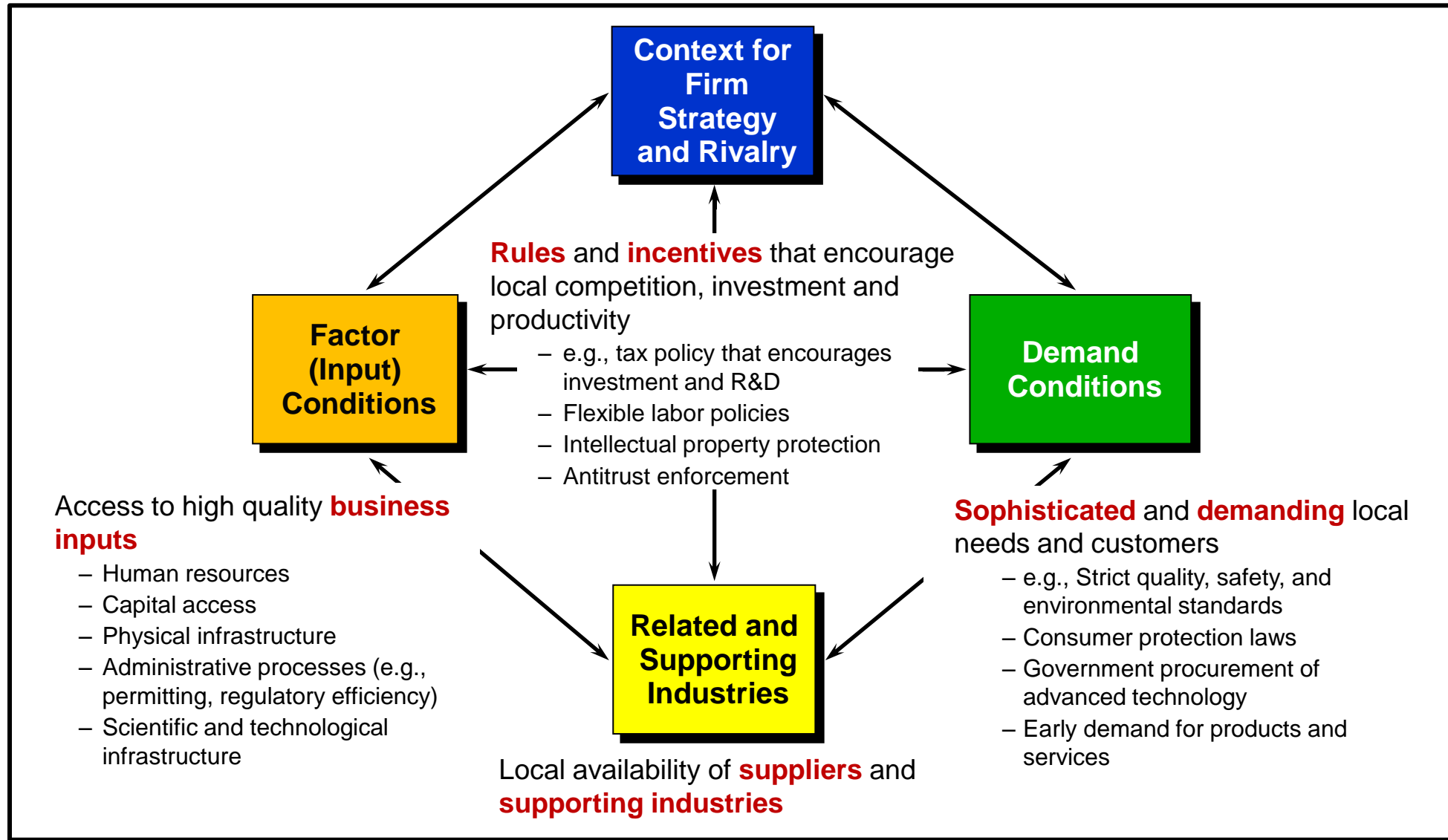
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Quality of the Overall Business Environment



- **Many things matter** for competitiveness
- Economic development is the process of improving the business environment to enable companies **to compete in increasingly sophisticated ways**

Improving the Business Environment

Common Action Items

1. Simplify and speed up **regulation** and **permitting**
2. Reduce unnecessary **costs of doing business**
3. Establish **training programs** that are aligned with the needs of the state's businesses
4. Focus **infrastructure investments** on the most leveraged areas for productivity and economic growth
5. Design all policies to support **emerging growth companies**
6. Protect and enhance the state's **higher education** and **research** institutions
7. Relentlessly improve the **public education** system, the essential foundation for productivity in the long run

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What is a Cluster?

A geographically concentrated group of interconnected companies and associated institutions in a particular field



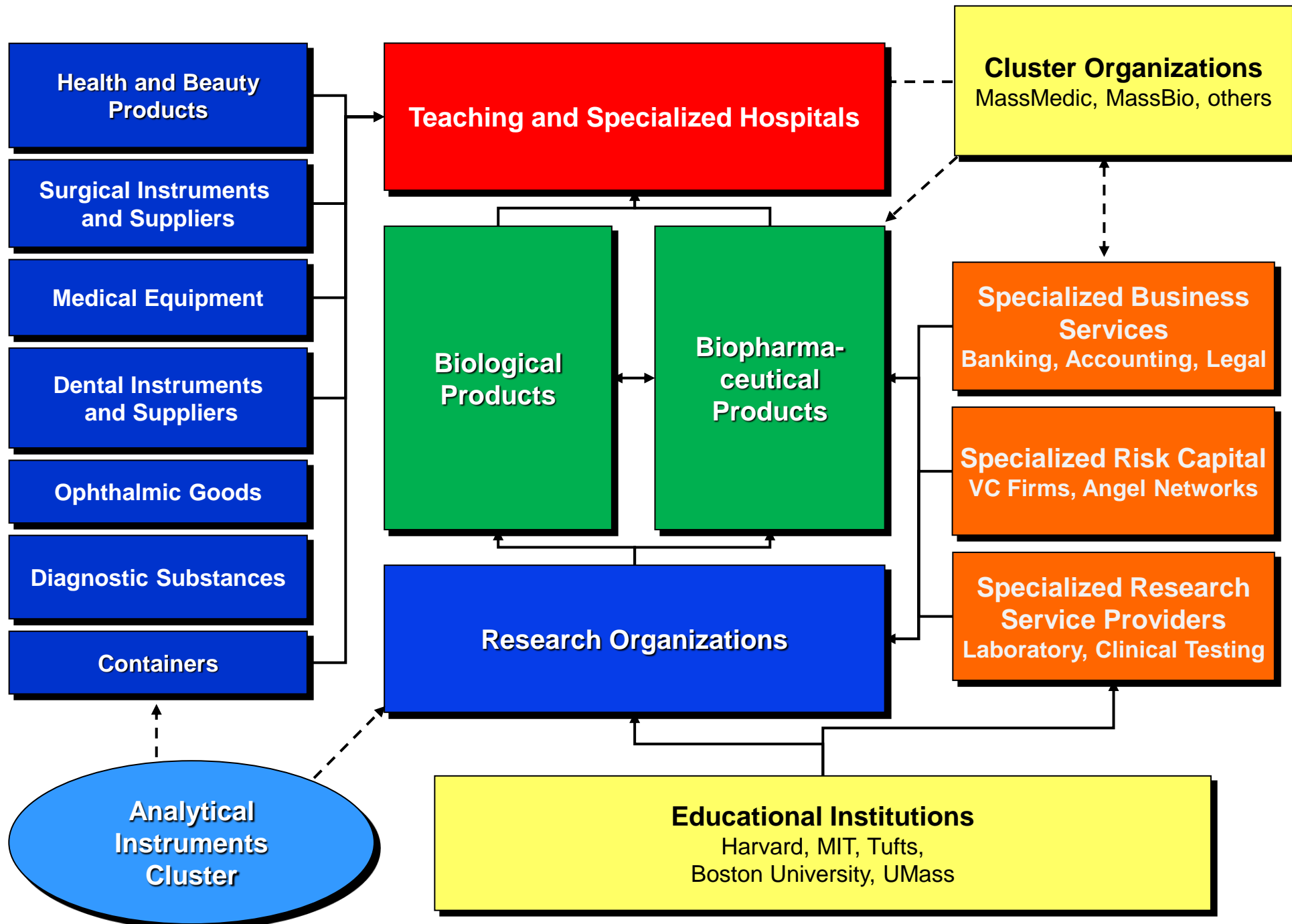
Traded Clusters

- Compete to serve **national** and **international** markets
- Can locate anywhere
- 30% of employment

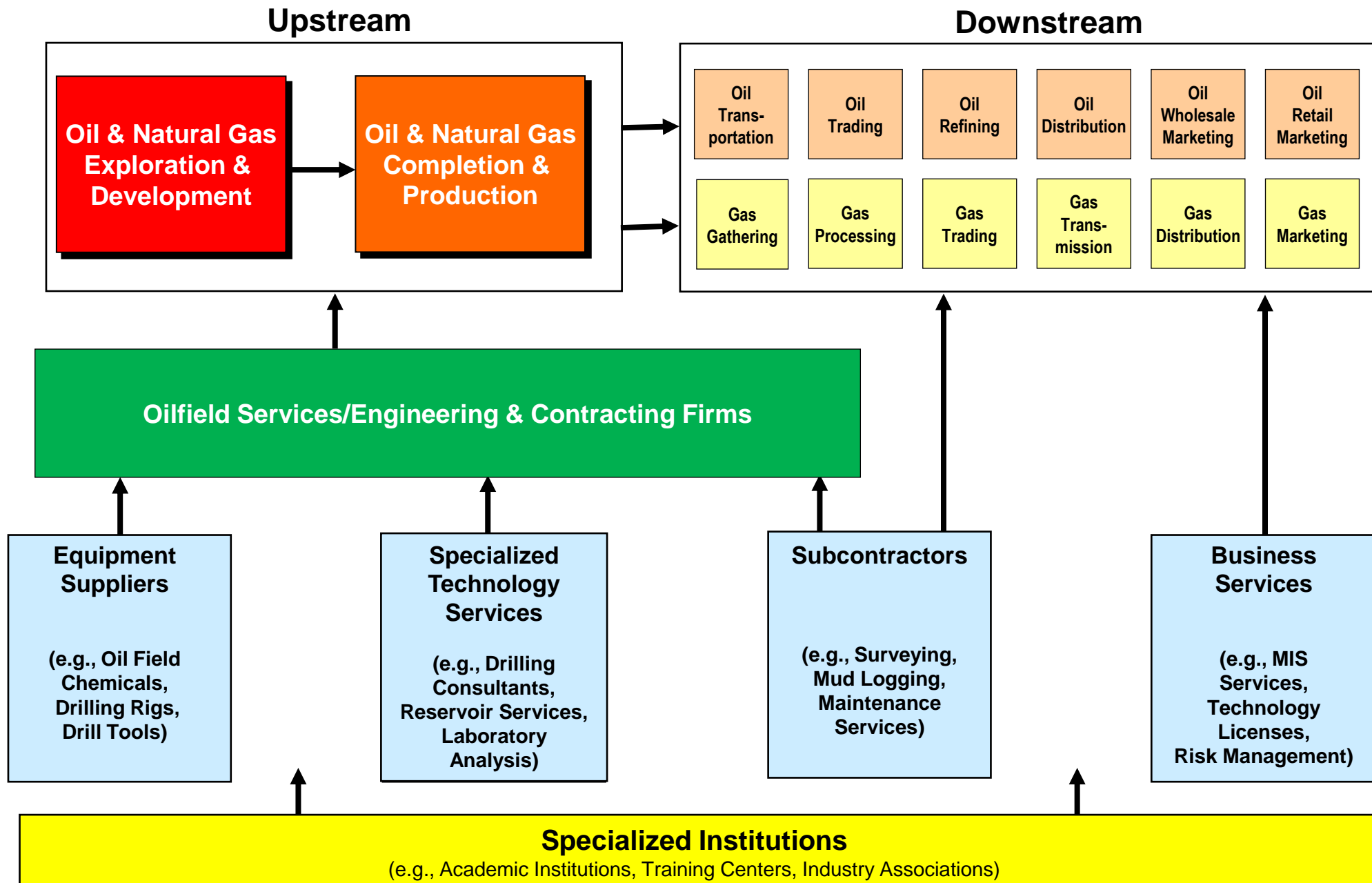
Local Clusters

- Serve almost exclusively the **local** market
- Not directly exposed to cross-regional competition
- 70% of employment

Example: Massachusetts Life Sciences Cluster

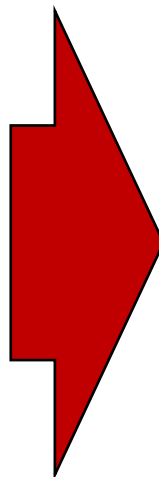


Example: Houston Oil and Gas Cluster



Strong Clusters Drive Regional Performance

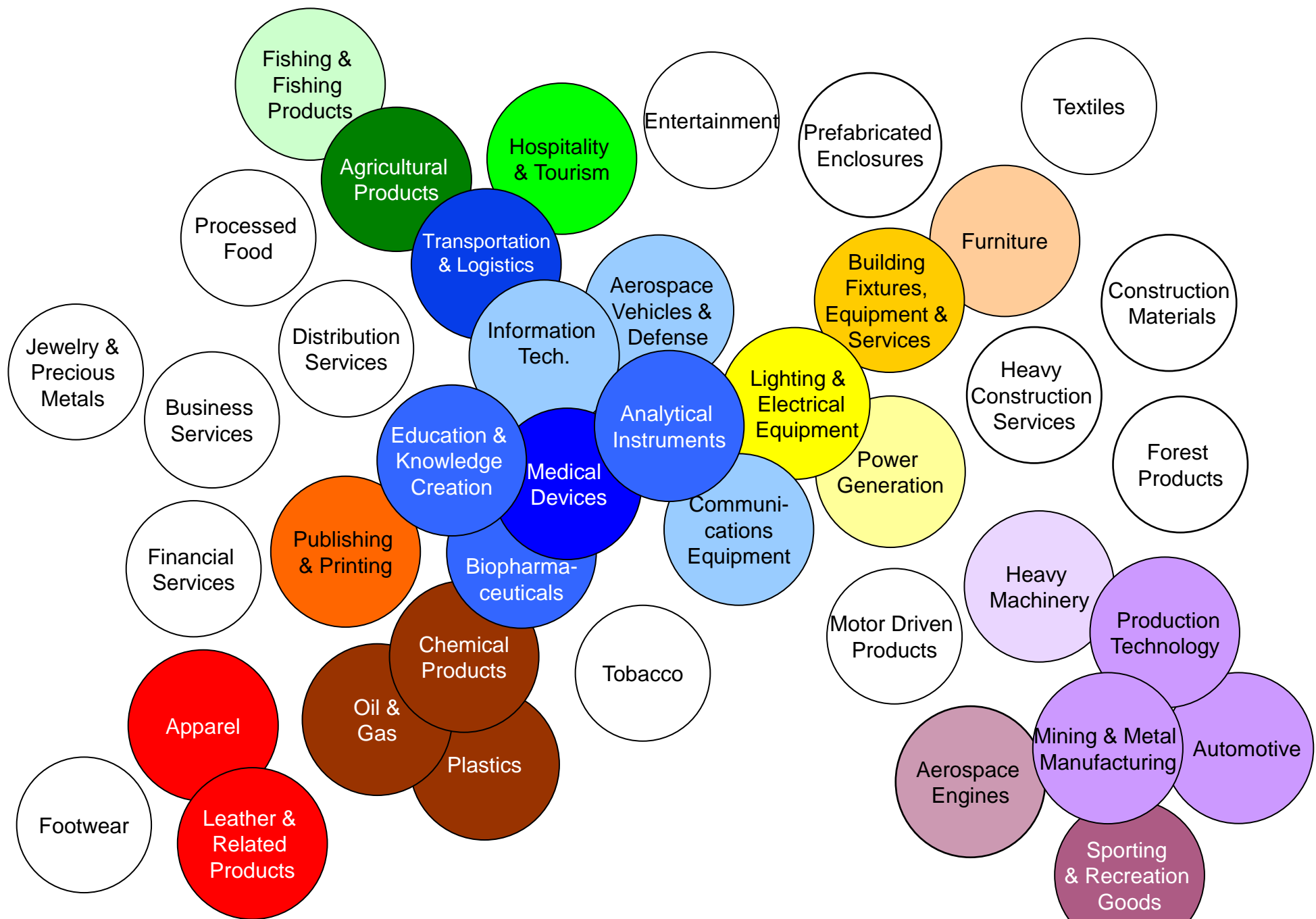
- Specialization in **strong clusters**
- **Breadth** of industries within each cluster
- Strength in **related clusters**
- Presence of a region's clusters in **neighboring regions**



- **Job** growth
- Higher **wages**
- Higher **patenting** rates
- Greater **new business** formation, growth and survival

On average, cluster strength is much more important (78.1%) than cluster mix (21.9%) in driving regional performance in the U.S.

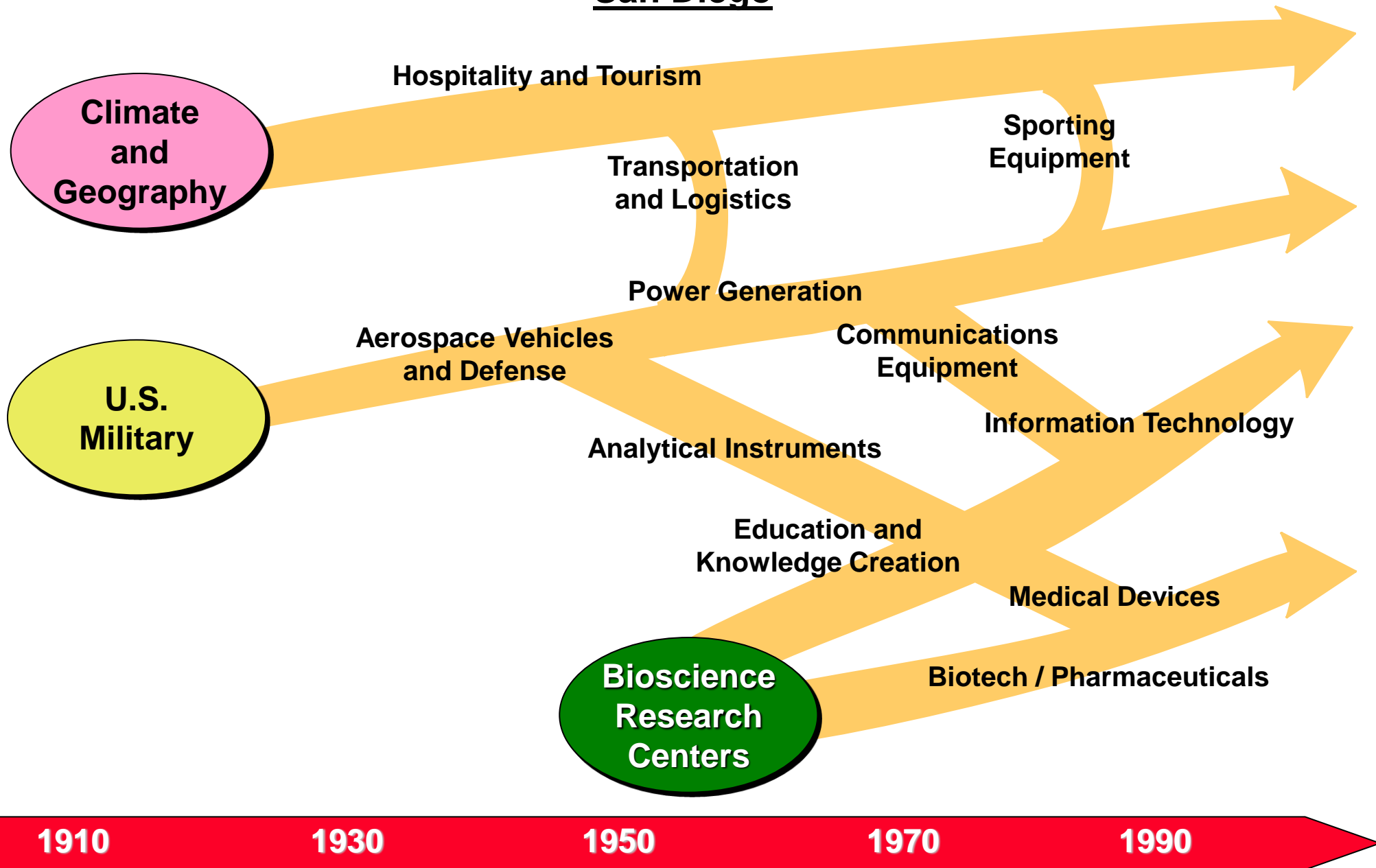
Clusters and Economic Diversification



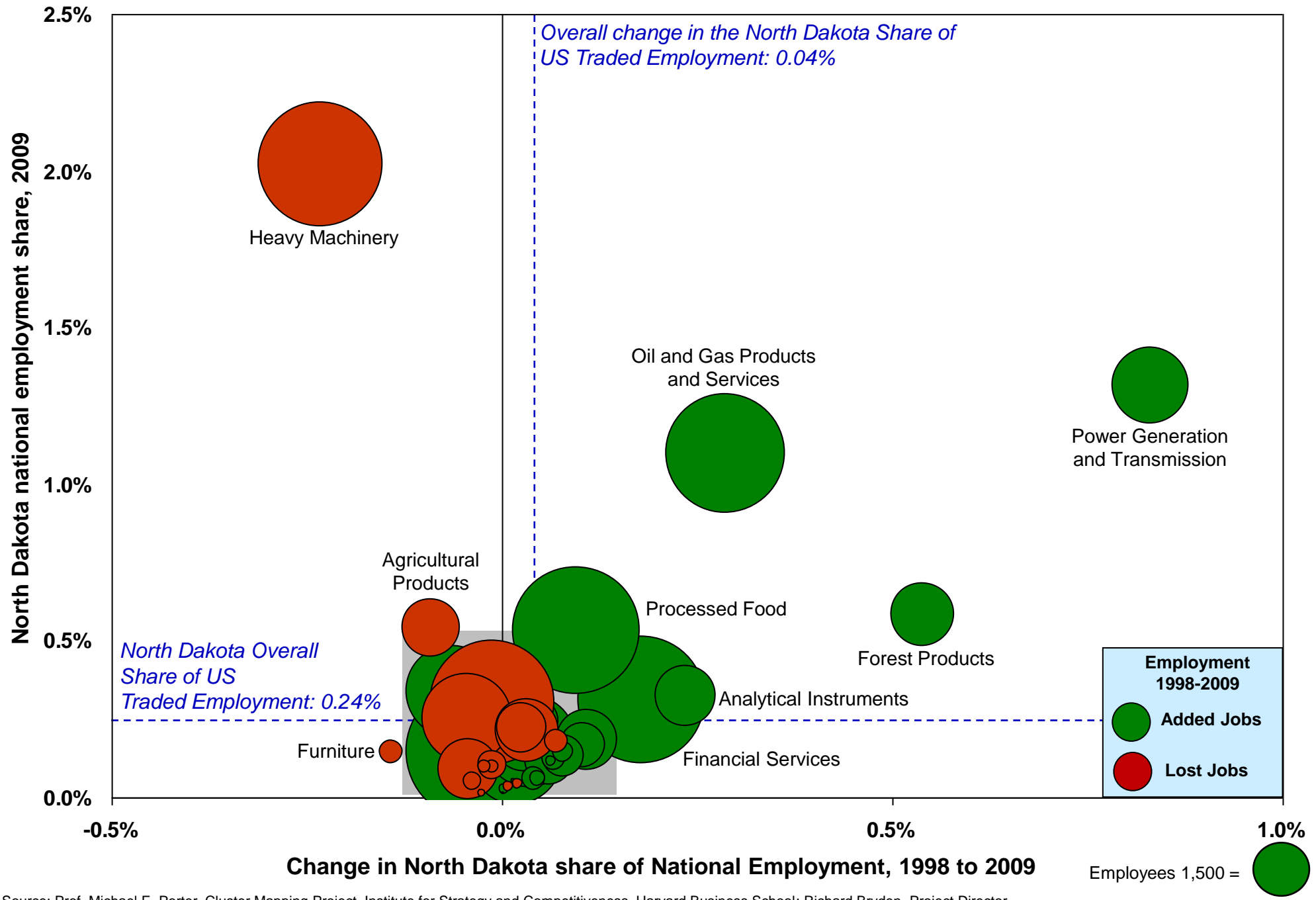
Note: Clusters with overlapping borders or identical shading have at least 20% overlap (by number of industries) in both directions.

The Evolution of Regional Economies

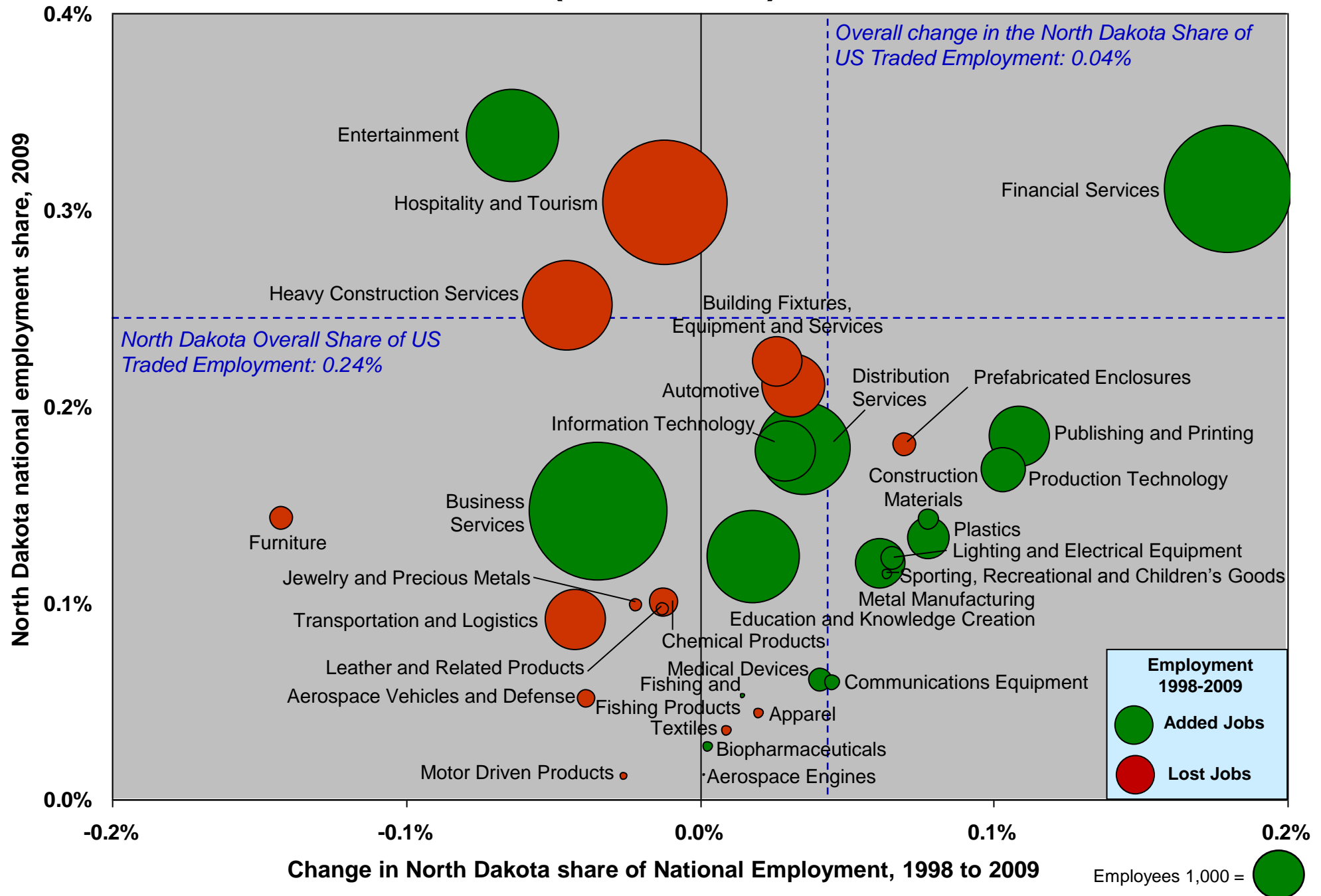
San Diego



Traded Cluster Composition of the North Dakota Economy

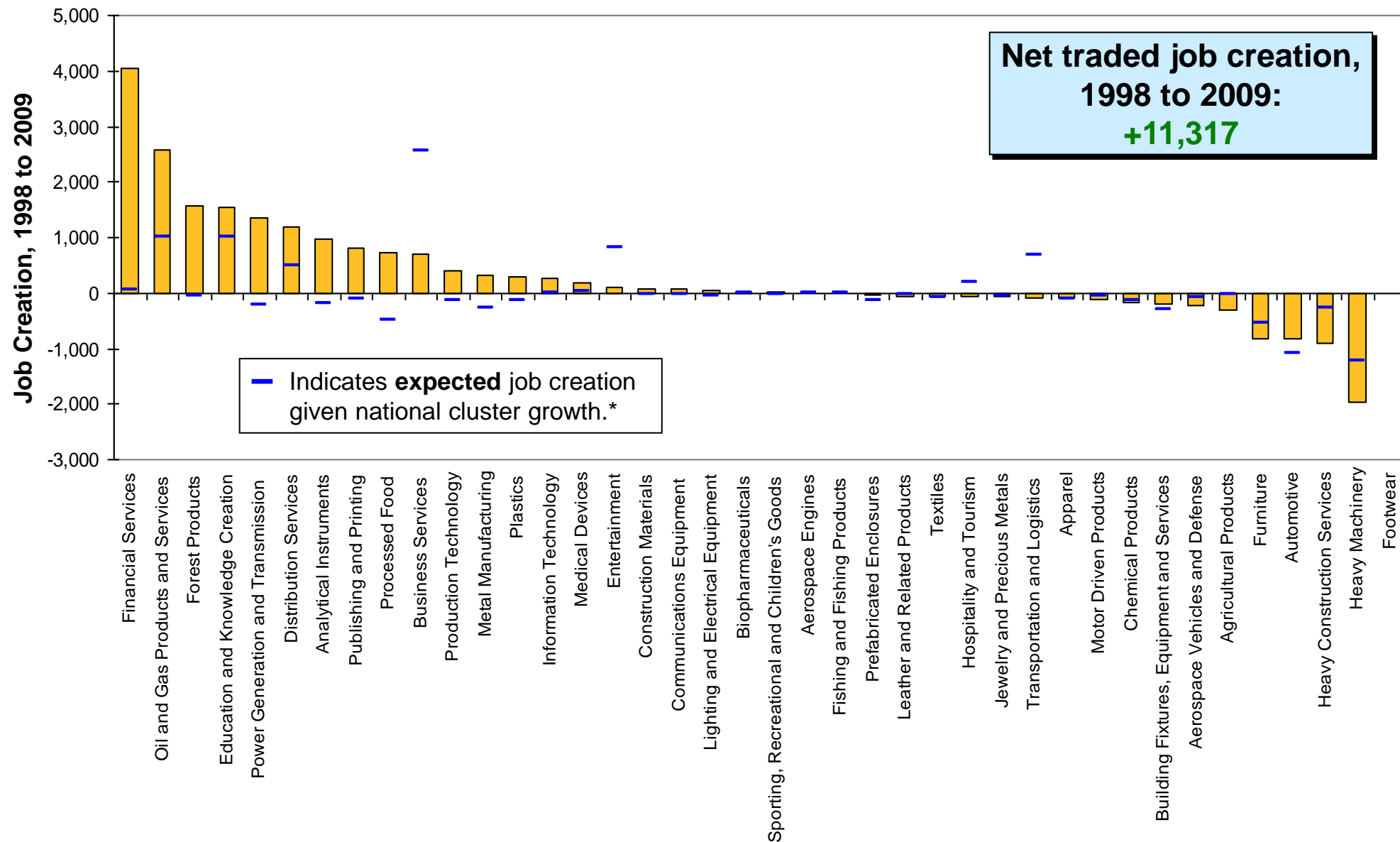


Traded Cluster Composition of the North Dakota Economy (continued)



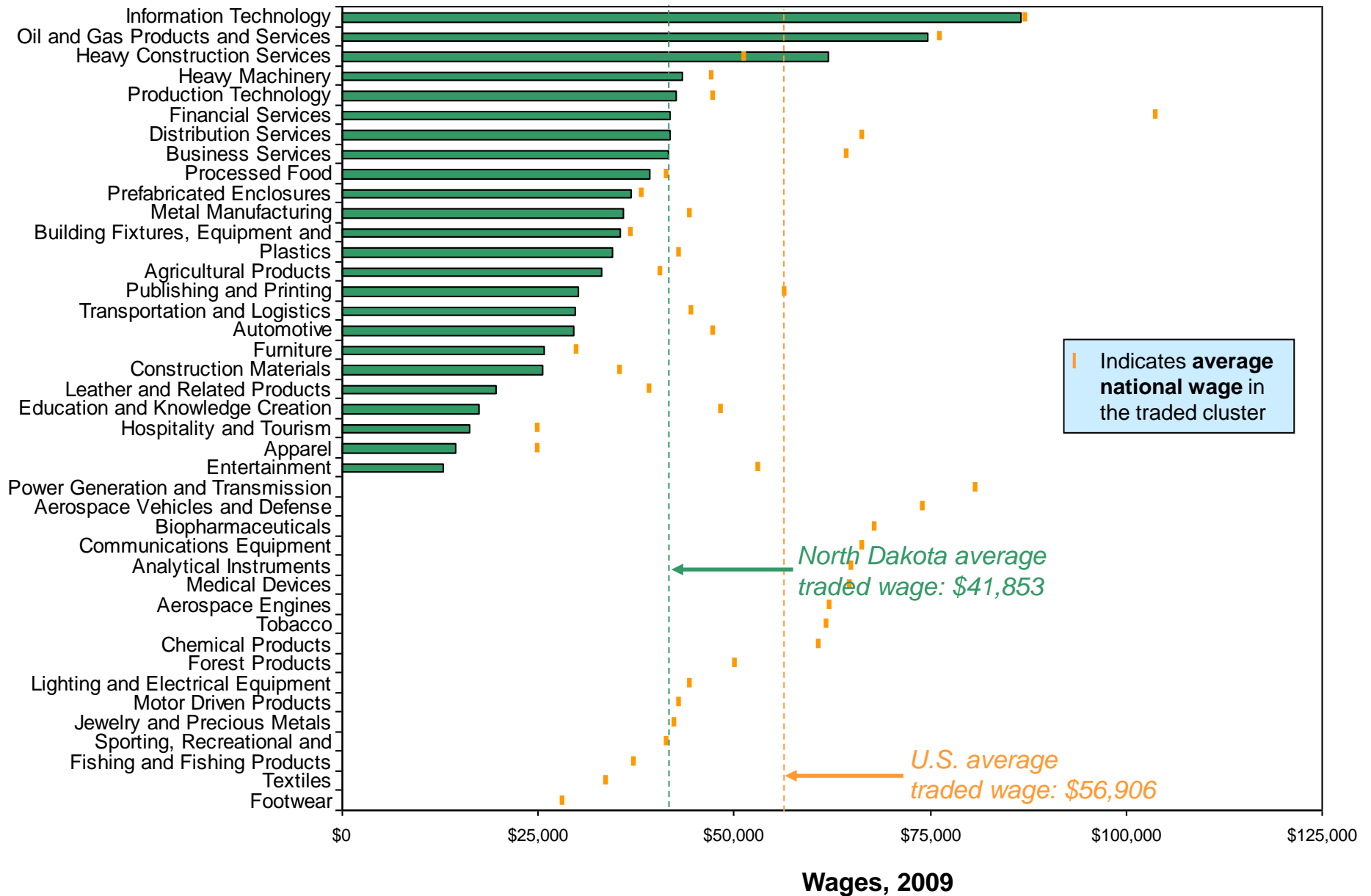
North Dakota Job Creation in Traded Clusters

1998 to 2009



* Percent change in national benchmark times starting regional employment. Overall traded job creation in the state, if it matched national benchmarks, would be 651
Source: Prof. Michael E. Porter, Cluster Mapping Project, Institute for Strategy and Competitiveness, Harvard Business School; Richard Bryden, Project Director.

North Dakota Wages in Traded Clusters vs. National Benchmarks



Source: Prof. Michael E. Porter, Cluster Mapping Project, Institute for Strategy and Competitiveness, Harvard Business School; Richard Bryden, Project Director.

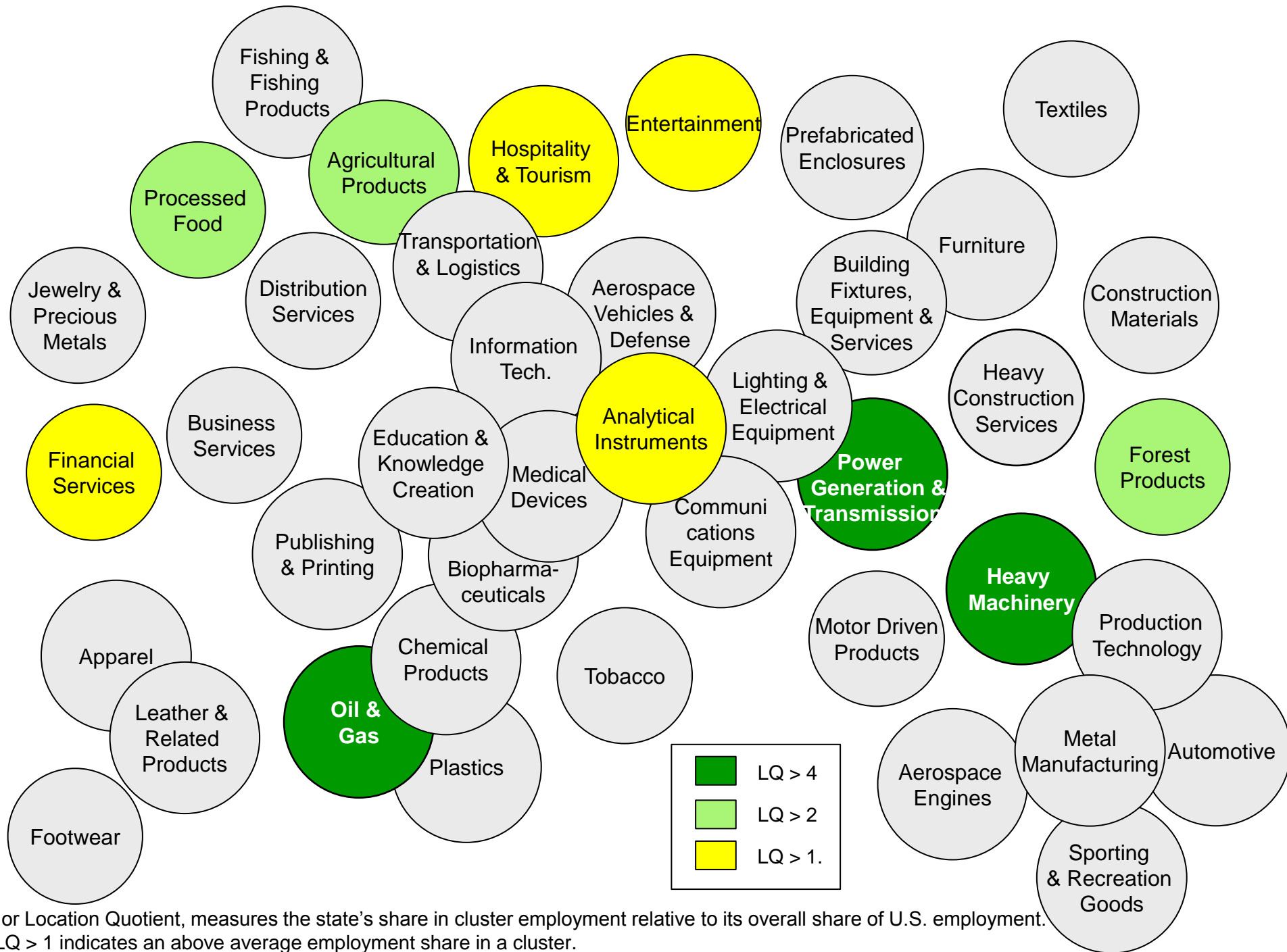
Productivity Depends on How a State Competes, Not What Industries It Competes In

State	State Traded Wage versus National Average	Cluster Mix Effect	Relative Cluster Wage Effect
Connecticut	+27,171	7,028	20,142
New York	+24,102	3,628	20,474
Massachusetts	+16,169	4,391	11,778
New Jersey	+13,535	3,761	9,774
California	+9,573	349	9,224
Maryland	+6,651	2,496	4,155
Washington	+5,652	2,692	2,960
Virginia	+5,319	1,617	3,702
Illinois	+2,658	16	2,642
Colorado	+1,662	2,416	-754
Texas	+352	2,494	-2,142
Delaware	+164	11,060	-10,896
Alaska	-930	-2,417	1,487
Pennsylvania	-3,970	-995	-2,975
Louisiana	-4,280	95	-4,375
Georgia	-5,322	-1,102	-4,220
Minnesota	-5,576	-425	-5,150
New Hampshire	-6,387	374	-6,761
Arizona	-7,021	1,149	-8,169
Kansas	-7,705	2,241	-9,946
Wyoming	-8,057	1,040	-9,097
Michigan	-8,176	-2,544	-5,633
North Carolina	-9,245	-4,330	-4,915
Ohio	-9,284	-2,495	-6,788
Rhode Island	-9,791	-2,290	-7,501

State	State Traded Wage versus National Average	Cluster Mix Effect	Relative Cluster Wage Effect
Oregon	-10,359	-1,304	-9,056
Missouri	-10,427	-1,425	-9,002
Alabama	-10,934	-3,563	-7,371
Florida	-11,007	-1,559	-9,448
Wisconsin	-11,722	-3,516	-8,206
Nebraska	-11,777	241	-12,018
Utah	-11,992	2,072	-14,064
Tennessee	-12,172	-3,156	-9,016
Indiana	-12,554	-4,840	-7,714
Vermont	-13,368	-1,572	-11,796
Oklahoma	-13,572	497	-14,069
Nevada	-14,277	-2,365	-11,911
North Dakota	-14,394	1,004	-15,397
South Carolina	-15,276	-5,067	-10,209
Arkansas	-15,378	-4,560	-10,818
Hawaii	-16,043	-12,555	-3,487
New Mexico	-16,123	-288	-15,835
Kentucky	-16,215	-5,024	-11,191
Maine	-16,379	-968	-15,412
Iowa	-16,606	-2,721	-13,885
West Virginia	-16,645	-3,894	-12,751
Idaho	-18,671	-787	-17,884
Mississippi	-19,942	-5,291	-14,651
Montana	-20,073	-2,259	-17,815
South Dakota	-20,968	289	-21,257

On average, cluster strength is much more important (78.1%) than cluster mix (21.9%) in driving regional performance in the U.S.

North Dakota Cluster Portfolio, 2009



LQ, or Location Quotient, measures the state's share in cluster employment relative to its overall share of U.S. employment. An LQ > 1 indicates an above average employment share in a cluster.

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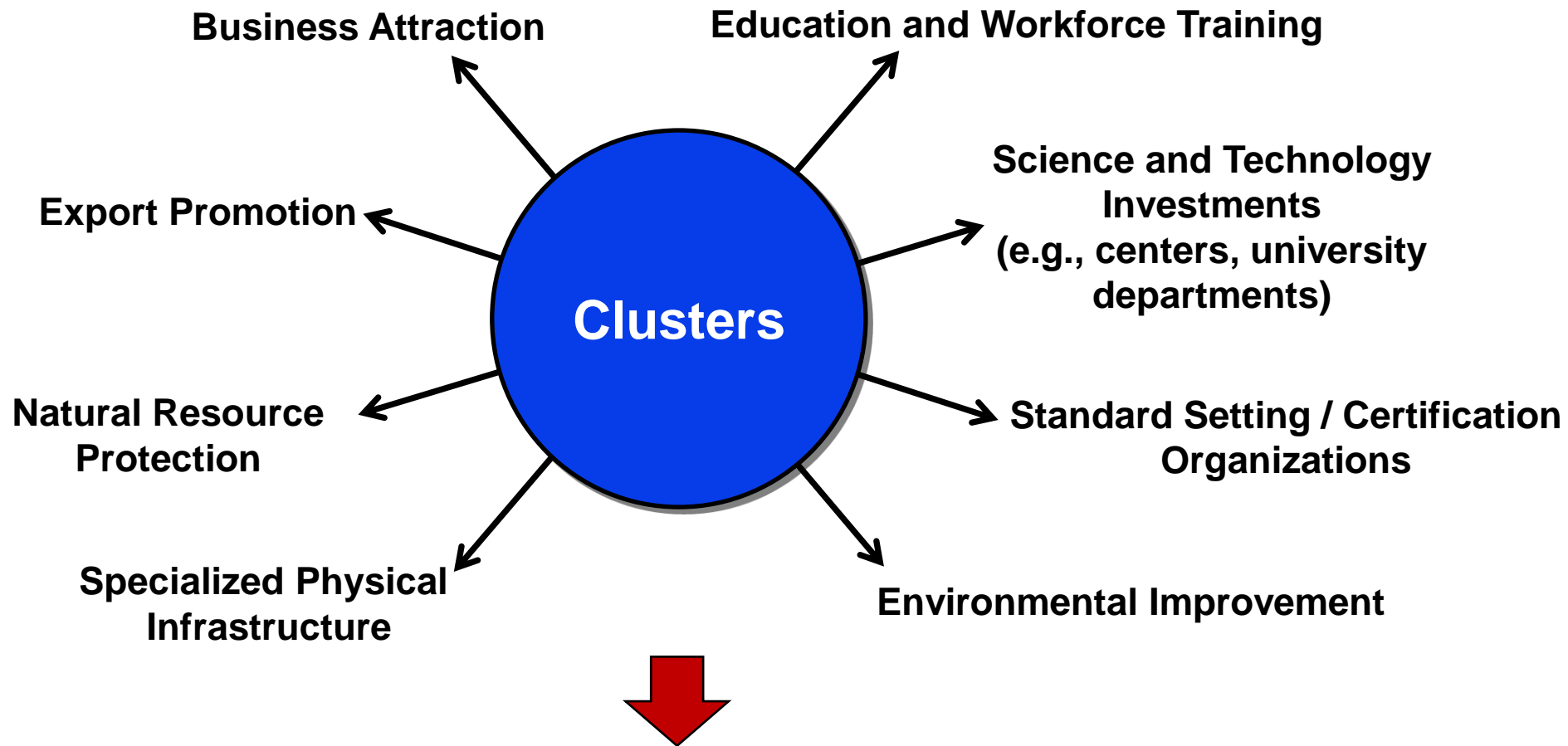
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Cluster Development

Common Action Items

1. Build on the state's **existing and emerging clusters** rather than chase “hot” fields
2. Pursue economic diversification **within clusters** and **across related clusters**
3. Create a private sector-led **cluster upgrading program** with matching support for participating private sector cluster organizations
 - Government should **listen** and **remove obstacles** to cluster improvement
4. **Align** other state economic policies and programs with clusters

Aligning Economic Policy and Clusters



- Clusters provide a framework for **organizing the implementation** of many public policies and public investments to achieve greater effectiveness

Why?

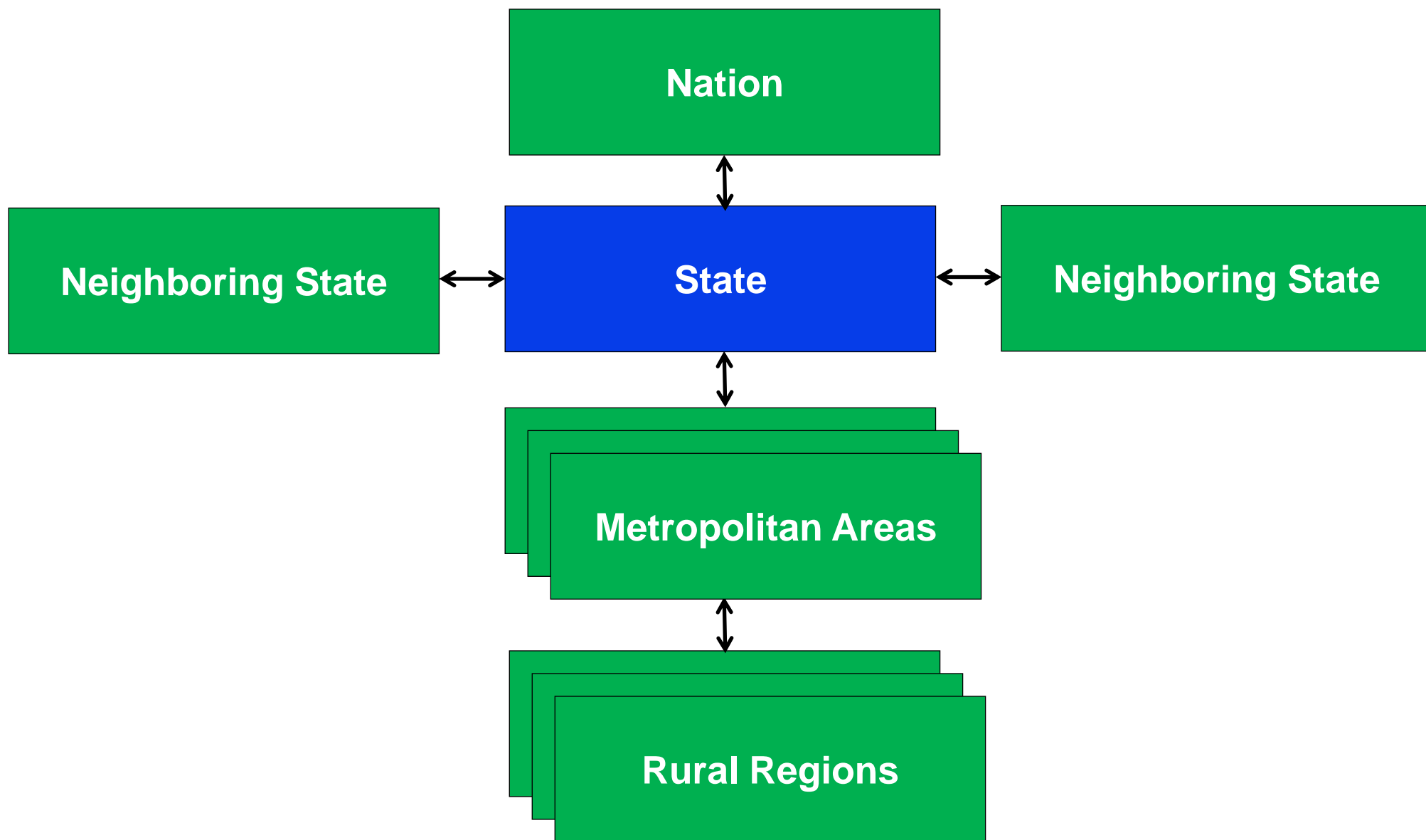
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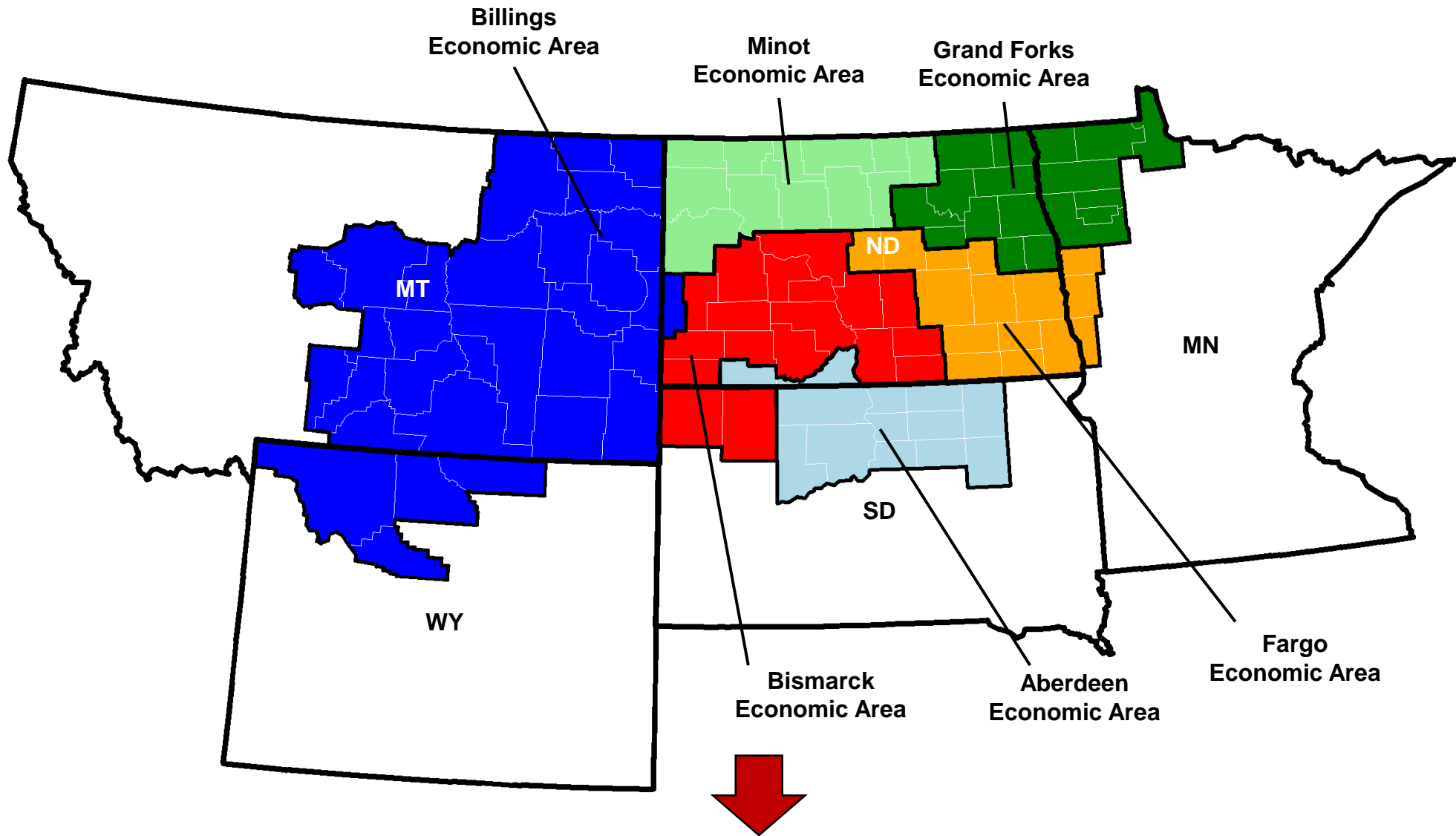
**2. Cluster
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Geographic and Governmental Influences on Productivity

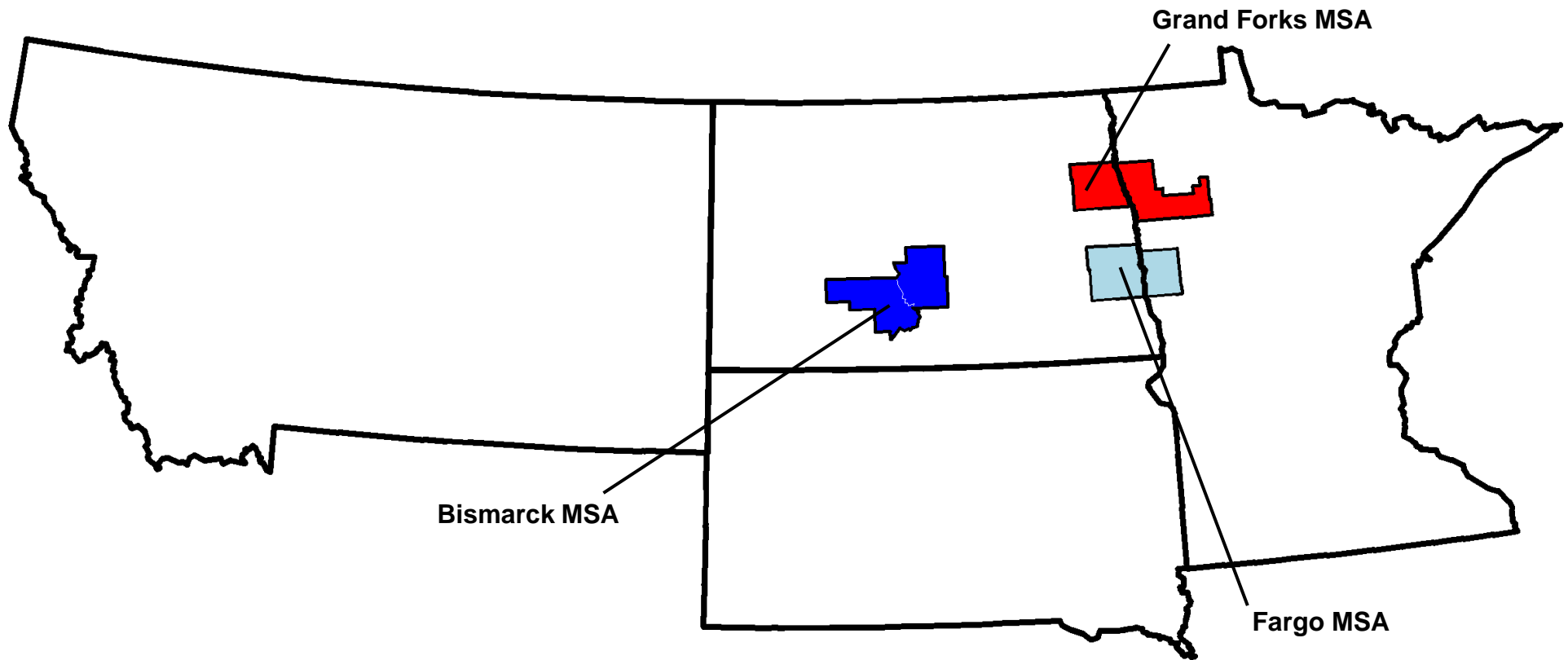


Defining the Appropriate Economic Regions

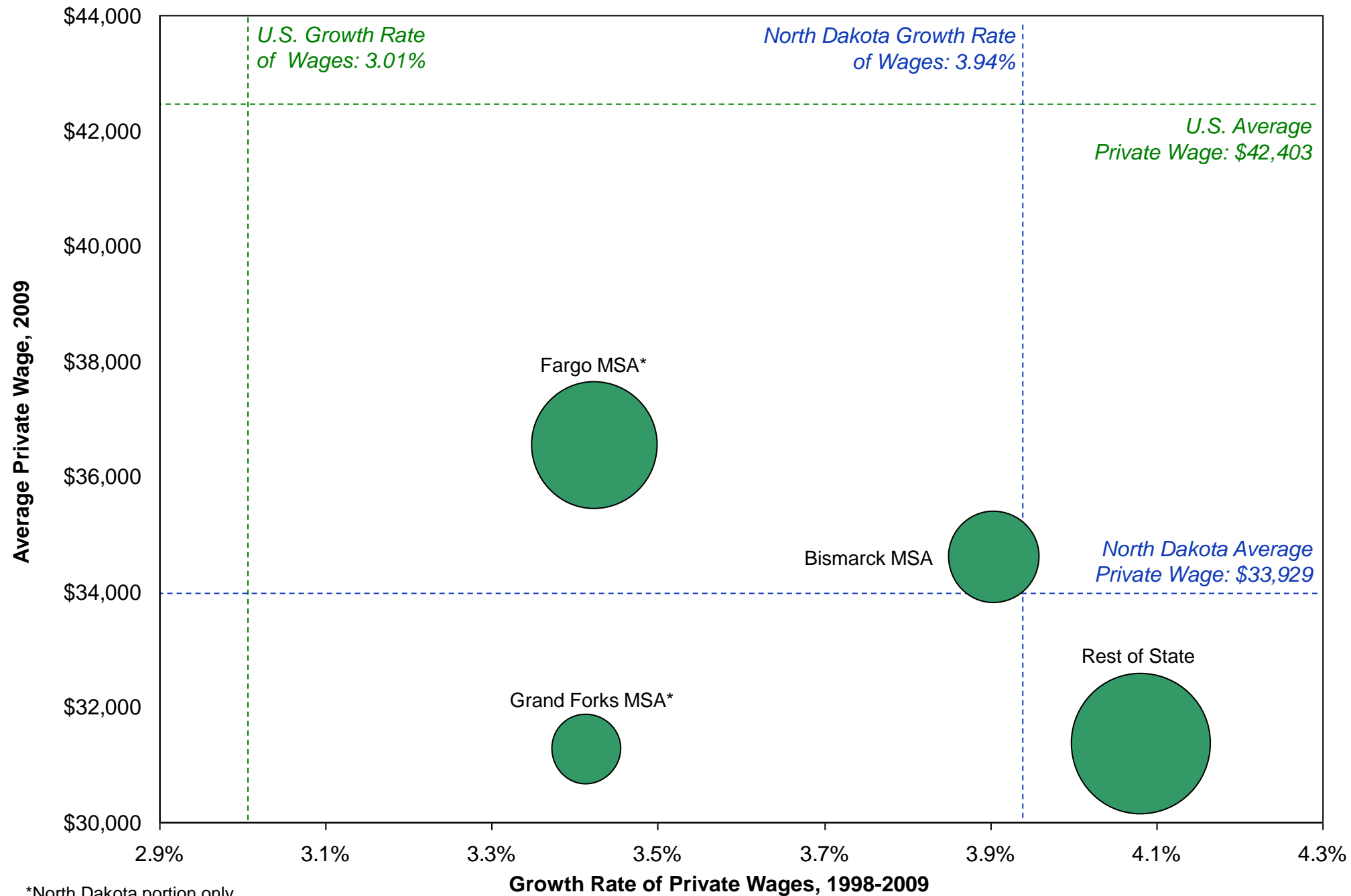


The economies of states are often an aggregation of distinct economic areas with differing circumstances

North Dakota Metropolitan Areas



Wage Performance in North Dakota Metropolitan Areas

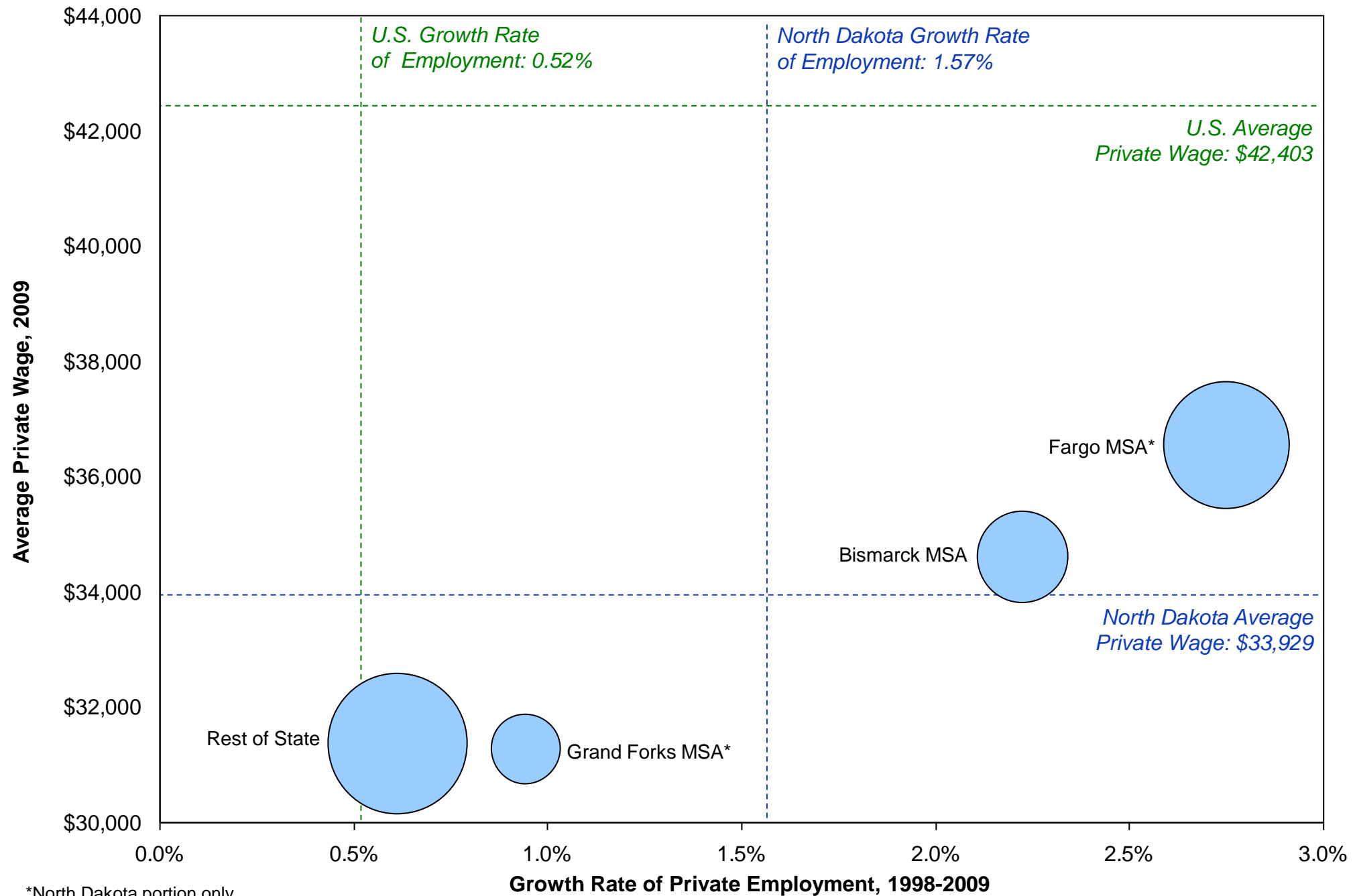


*North Dakota portion only

Source: Census CBP, authors' analysis. Note: "Bubble" size in chart is proportional to employment in 2009.

2012 State Competitiveness – Rich Bryden

Employment Performance in North Dakota Metropolitan Areas

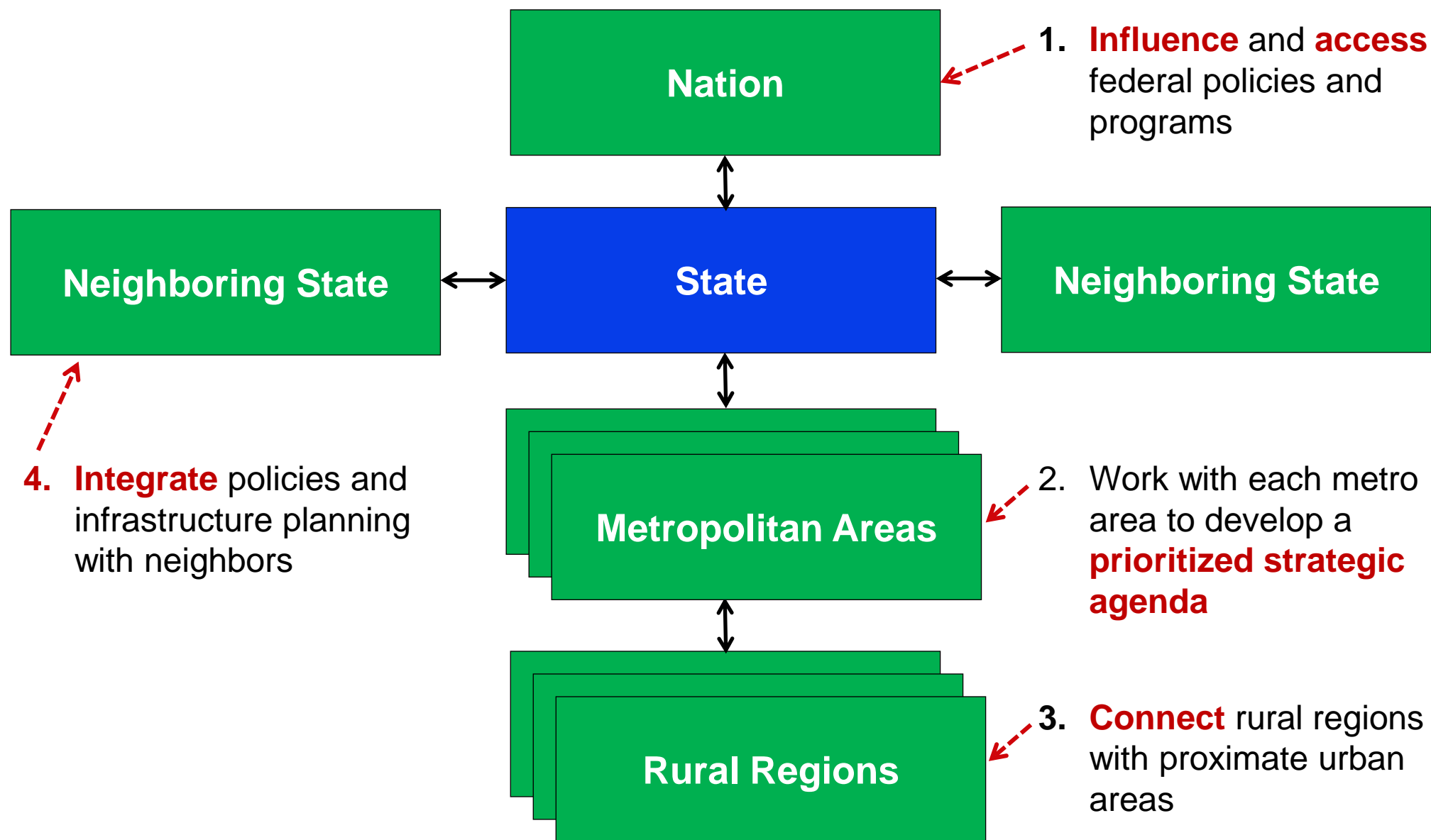


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2012 State Competitiveness – Rich Bryden

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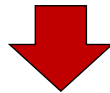


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Biggest Action Item of All

Create an Economic Strategy

- What is the **distinctive competitive position** of the state or region given its location, legacy, existing strengths, and potential strengths?
 - What unique value as a business location?
 - For what types of activities and clusters?

Define the Value Proposition

Develop Unique Strengths

- What **elements of the business environment** can be unique strengths relative to peers/neighbors?
- What **existing** and **emerging clusters** represent local strengths?

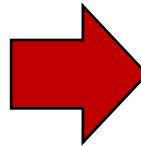
Achieve and Maintain Parity with Peers

- What **weaknesses** must be addressed to remove key constraints and achieve parity with peer locations?

- Economic strategy requires **setting priorities** and **moving beyond** long lists of separate recommendations.

How Should States Compete for Investment?

Tactical (Zero Sum Competition)



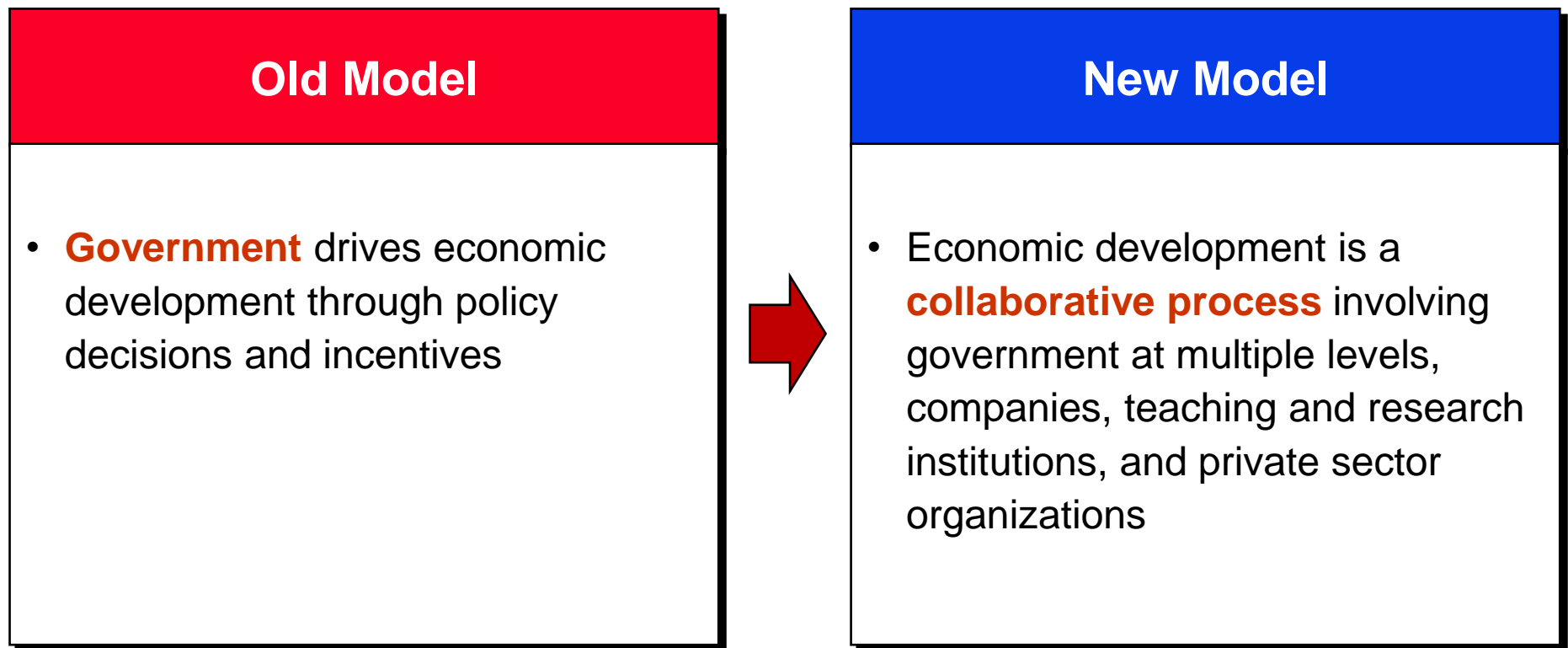
Strategic (Positive Sum Competition)

- Focus on attracting **new** investments
- Compete for **every** plant
- Offer **generalized** tax breaks
- Provide **subsidies** to lower / offset business costs
- Every city and sub-region **for itself**
- **Government** drives investment attraction

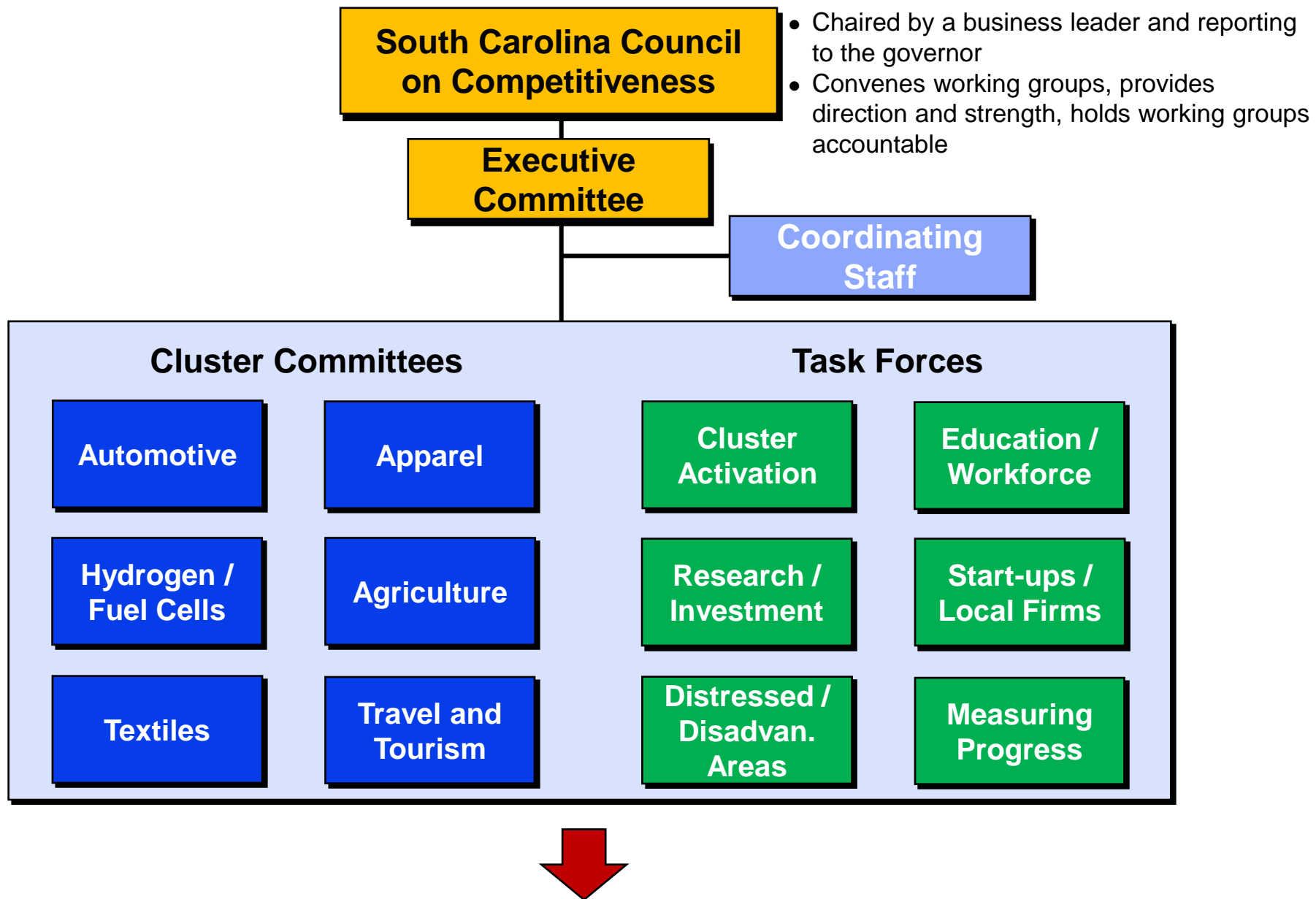
- Also support greater local investment by **existing** companies
- Reinforce areas of **specialization** and emerging cluster strength
- Provide state support for training, infrastructure, and institutions with **enduring benefits**
- Improve the **efficiency of doing business**
- Harness efficiencies and coordination **across jurisdictions**, especially with neighbors
- Government and the private sector **collaborate** to build cluster strength

Harnessing the New Process of Economic Development

Competitiveness is the result of both **top-down** and **bottom-up processes** in which many companies and institutions take responsibility



Example: Organizing for Economic Development



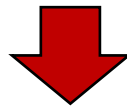
Effective economic policy also requires **coordination within government**

Summary

- The goal of economic strategy is to enhance **productivity**. This is the only way to create jobs, high income, and wealth in the long run
- Improving **productivity** and **innovation** must be the guiding principles for every state policy choice
- Improving productivity does not require new public resources, but **using existing resources better**
- Improving productivity demands that governors **mobilize the private sector**, not rely on government alone
- Economic strategy is non-partisan and about getting **results**

Next Steps

1. Reach out to your team
2. Reach out to the business community
3. Take advantage of Harvard Business School data and tools to support this effort. Go to www.isc.hbs.edu.



The prosperity of the **U.S. economy** will depend more on the success of states in improving competitiveness than what happens in Washington